



# JURNAL ASESMEN DAN INTERVENSI ANAK BERKEBUTUHAN KHUSUS

Jurnal homepage: <https://ejournal.upi.edu/index.php/jassi/index>



## The Use of Drill Method in Improving the Ability to Use Sanitary Pads During Menstruation Among Children with Mild Intellectual Disabilities at A Special School

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### ABSTRACT

This study aims to explore the use of the drill method in improving the ability to use sanitary pads during menstruation among children with mild intellectual disabilities, with the goal of enabling these children to use sanitary pads independently without assistance from parents or guardians. The research method employed is Single Subject Research (SSR), with data collection techniques including observation and interviews with teachers, peers, and parents/guardians of children with mild intellectual disabilities. Based on data analysis, the results demonstrate that the research subjects showed improvement in independently using sanitary pads without parental/guardian assistance after the periodic implementation of the drill method. The conclusion of this study is that the use of the drill method is effective in enhancing the ability of children with mild intellectual disabilities to use sanitary pads. This research is expected to contribute to other researchers interested in investigating similar issues and to provide guidance in developing more effective interventions to improve the independence of children with mild intellectual disabilities in this regard.

### ARTICLE INFO

#### Article History:

Submitted/Received 25 Nov 2024

First Revised 25 Jan 2025

Accepted 15 Apr 2025

First Available online 01 Jun 2025

Publication Date 01 Jun 2025

#### Keyword:

Drill method,

Independence skills,

Menstrual hygiene

Mild intellectual disabilities,

Sanitary pads usage,

## 1. INTRODUCTION

Children with intellectual disabilities, like other children, undergo normal physical and mental growth and development. This process cannot be halted as it aligns with the developmental stages that every individual must experience. Upon entering puberty, when sexual organ maturation occurs, girls with intellectual disabilities also experience menstruation, like other girls. Although their mental condition is below normal, their sexual organs develop normally (Yati et al., 2020).

Research by Gönenç et al (2020) indicates that adolescent girls with intellectual disabilities face significant challenges in managing menstrual hygiene independently. The lack of appropriate educational interventions often results in continued dependence on caregivers for basic self-care tasks. Similarly, Karthikayini & Arun (2021) found that structured learning approaches can significantly improve the independence of individuals with mild intellectual disabilities in performing daily living activities, though primary caretakers continue to face substantial challenges during menstrual cycles.

From the author's observations, it was found that a 21-year-old female adolescent with mild intellectual disability was unable to use sanitary pads correctly and independently. During menstruation, the subject required assistance in using sanitary pads from institutional staff or peers, as she resides in a care facility and attends a special school for children with intellectual disabilities. Based on interviews with teachers, students, and guardians, it can be concluded that the subject's ability to use sanitary pads was acquired through learning at the institution, where her guardian provided direct instruction during the subject's menstrual periods. However, despite receiving this instruction, the subject still struggles to use sanitary pads independently and continues to require assistance from her guardian.

Recent studies have explored various interventions for improving self-care skills among individuals with intellectual disabilities. Kirbas (2022) demonstrated the effectiveness of video modeling in teaching menstrual hygiene skills to adolescent girls with developmental disabilities. Their study showed a 75% improvement in independent task completion following structured intervention. Similarly, Flores-Medina et al (2022) investigated the use of task analysis combined with prompting strategies, finding significant improvements in toileting and hygiene behaviors among participants with moderate intellectual disabilities.

Armah-Ansah et al (2023) conducted a comprehensive review of educational approaches for teaching personal care skills to individuals with intellectual disabilities. Their findings suggest that repetitive practice methods, particularly drill techniques, show promising results in skill acquisition and retention. Furthermore, Wilbur et al (2022) explored the long-term effectiveness of drill-based interventions, concluding that consistent practice leads to sustained behavioral changes in daily living skills.

The work of Carter et al (2022) specifically examined menstrual education programs for girls with intellectual disabilities, highlighting the importance of individualized instruction and repeated practice sessions. Their research demonstrated that systematic teaching approaches resulted in improved confidence and independence in menstrual hygiene management.

Self-care education in schools is insufficient to meet the needs of adolescent girls with intellectual disabilities in mastering sanitary pad usage skills. The learning process for children with intellectual disabilities needs to be conducted intensively, in accordance with their abilities (Thakur & Mishra, 2023). Through specialized self-care training, children with intellectual disabilities receive guidance to reduce dependence on others and to become independent individuals. Therefore, it is crucial to provide specialized training in independence for adolescent girls with intellectual disabilities to enable them to master sanitary pad usage skills.

Based on the literature review, several key research gaps have been identified. The novelty of this research includes: (i) the application of drill method specifically for sanitary pad usage training among children with mild intellectual disabilities; (ii) the use of single-subject research design with A-B-A-B pattern to measure intervention effectiveness; (iii) the focus on developing complete independence in menstrual hygiene management; (iv) the integration of theoretical knowledge with practical skill application; and (v) the longitudinal assessment of skill retention and generalization across different settings.

The research hypothesis states that there is an increase in children with mild intellectual disabilities' knowledge and ability on how to use sanitary pads using the drill method. Children with intellectual disabilities are referred to as those with Intellectual Developmental Disability (IDD). According to recent research by Carmine & Fisher (2022), individuals with mild intellectual disabilities demonstrate the capacity for educational achievement, though they require specialized approaches for personal care skills including menstrual and reproductive health management.

The drill method is a technique involving repeated practice aimed at acquiring practical skills and proficiency related to the subject being studied. In its implementation, students are first provided with theoretical knowledge. Subsequently, students are guided by the teacher through practice sessions until they become proficient and skilled. Research by Retznik et al (2023) demonstrates that structured interventions provide caregivers with a sense of security when supporting young people with intellectual disabilities in managing personal care tasks.

Menstruation is a sign that a girl is growing into an adult woman. Menstruation is a natural process for women, usually starting at the age of 10-14 years. Menstruation is experienced by adult women every month (Rizqita et al, 2024). During menstruation, blood naturally flows from the vagina for 3-7 days. Menstruation usually occurs once a month. When experiencing menstruation for the first time, a person may feel afraid, embarrassed, or panicked (Yati et al., 2020).

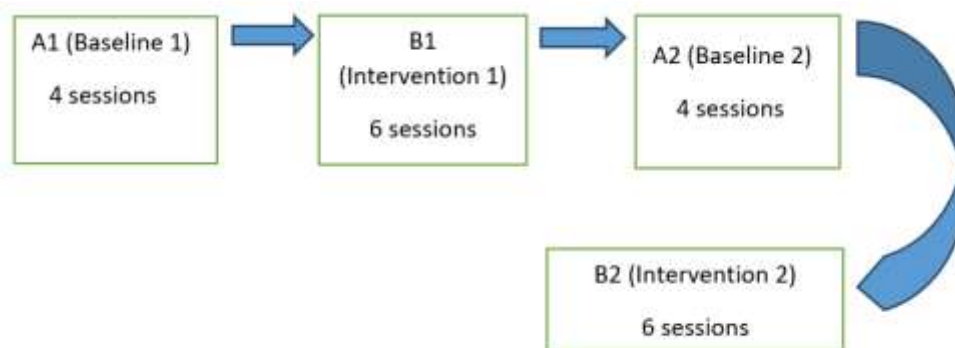
Sanitary pads are products made from cellulose or synthetic materials designed to absorb menstrual or vaginal fluids. During the manufacturing process, cellulose-based pads undergo a bleaching process using hydrogen peroxide, which is considered dioxin-free. It is important for all women to remember to change their sanitary pads at least every 4 hours to maintain hygiene and comfort in the intimate area (Trigunait & Sharmila, 2023).

## 2. METHODS

This study employs the single-subject research method, which is commonly used in the field of special education for students with special needs. Single Subject Research (SSR) is an experimental method conducted on a single subject to observe the effect of repeated interventions on desired changes within a specific period. Through SSR, the researcher can provide direct instruction or conduct research on a single subject.

This study employs an A-B-A-B design to assist the researcher in conducting the research. This design can be explained as follows: baseline (A) refers to the subject's ability, and intervention (B) represents the use of media or methods to address the subject's issues. Data analysis is performed by comparing the data before and after the intervention. If a significant change occurs after the intervention, the drill method can be considered effective in improving the independent use of sanitary pads among children with mild intellectual disabilities.

**Figure 1** explain about the research flow follows this sequence: Initial Assessment (A1) → First Intervention (B1) → Second Assessment (A2) → Second Intervention (B2). Each phase consists of multiple sessions to ensure data reliability and intervention effectiveness.



**Figure 1.** Research flow.

This research was conducted at a special education institution in North Sulawesi Province. The study was carried out from October to December 2024. The researcher utilized observation guides, interviews, and performance assessments as the research instruments. Data collection involved systematic observation of the subject's ability to perform six key steps in sanitary pad usage: hand washing, pad unwrapping, adhesive removal, pad attachment, position adjustment, and final underwear fitting.

## 3. RESULTS AND DISCUSSION

### 3.1 Baseline-1 Results

**Table 1** explains the stage, referred to as baseline-1, the subject's ability to correctly use sanitary pads was assessed without any intervention. This baseline A1 stage involved 4 sessions, with the goal of observing the extent to which the subject had mastered the correct use of sanitary pads prior to the intervention. Research by Akter (2021) indicates that baseline measurements are crucial for establishing pre-intervention performance levels in single-subject research designs.

**Table 1.** Baseline-1 Results.

Session	Hand Washing	Pad Unwrapping	Adhesive Removal	Pad Attachment	Position Adjustment	Final Fitting	Total Score
1	0	0	0	0	0	0	0
2	0	1	0	0	0	0	1
3	0	1	1	0	0	0	2
4	1	1	0	0	0	1	3

The percentage obtained was:  $(0+1+2+3) / 24 \times 100\% = 25\%$

The baseline results demonstrate limited initial competency in sanitary pad usage, which aligns with findings from [Karthikayini & Arun \(2021\)](#) who reported similar baseline performance levels among adolescents with mild intellectual disabilities in self-care tasks.

### 3.2 Intervention Implementation Results (B1)

**Table 2** explains the second stage, the intervention was implemented using the drill method. The subject experienced a series of 6 sessions, with this intervention activity aimed at observing changes and improvements through repeated practice. According to [Gönenç et al \(2020\)](#), drill method interventions typically require 6-8 sessions to demonstrate measurable improvements in skill acquisition among individuals with intellectual disabilities.

**Table 2.** Intervention Results (B1).

Session	Hand Washing	Pad Unwrapping	Adhesive Removal	Pad Attachment	Position Adjustment	Final Fitting	Total Score
1	0	1	1	0	0	0	2
2	1	1	1	0	0	0	3
3	1	1	1	0	0	0	3
4	1	1	1	0	0	0	3
5	1	1	0	0	0	1	3
6	1	1	0	0	0	1	3

The percentage obtained was:  $(2+3+3+3+3+3) / 36 \times 100\% = 47.22\%$

The intervention results show improvement in specific skill components, particularly in basic preparatory steps. This pattern is consistent with research by [Kirbas et al \(2022\)](#) who observed that individuals with intellectual disabilities typically master simpler tasks before progressing to more complex skill combinations.

### 3.3 Baseline-2 Results

**Table 3** explains the baseline-2 measurements were conducted after the initial intervention to assess skill retention and generalization. This phase involved 4 sessions to evaluate the subject's ability to maintain improved performance without direct instruction support. Studies by [Armah-Ansah et al \(2023\)](#) emphasize the importance of post-intervention baselines in determining the lasting effects of educational interventions.

**Table 3.** Baseline-2 Results.

Session	Hand Washing	Pad Unwrapping	Adhesive Removal	Pad Attachment	Position Adjustment	Final Fitting	Total Score
1	1	1	1	0	0	1	4
2	0	1	1	0	1	1	4
3	1	1	1	1	0	0	4
4	1	1	1	0	1	1	5

The percentage obtained was:  $(4+4+4+5) / 24 \times 100\% = 70.83\%$

The baseline-2 results indicate significant skill retention and some degree of improvement maintenance following the initial intervention phase. This finding supports research by Wilbur et al (2022) who reported that drill-based interventions often result in sustained skill improvements among individuals with mild intellectual disabilities.

### 3.4 Intervention Results (B2)

Table 4 explains the fourth stage, the second intervention phase was implemented to further consolidate skill acquisition and promote complete independence. This phase involved 6 sessions with continued application of the drill method, focusing on mastery of all skill components. Research by Flores-Medina et al (2022) suggests that secondary intervention phases are often necessary to achieve complete skill mastery in individuals with intellectual disabilities.

**Table 4.** Intervention Results (B2).

Session	Hand Washing	Pad Unwrapping	Adhesive Removal	Pad Attachment	Position Adjustment	Final Fitting	Total Score
1	1	1	1	0	1	1	5
2	1	1	1	0	1	1	5
3	1	1	1	0	0	1	4
4	1	1	1	1	0	1	5
5	1	1	1	1	0	1	5
6	1	1	1	1	1	1	6

The percentage obtained was:  $(5+5+4+5+5+6) / 36 \times 100\% = 83.33\%$

The second intervention phase demonstrates substantial improvement across all measured skill components, with the final session achieving complete independence in sanitary pad usage. This outcome aligns with longitudinal studies by Carter et al (2022) who reported similar success rates with drill method interventions in personal care skill development.

### 3.5 Summary of Results

**Table 5** explains about the research findings, demonstrate significant improvement in the subject's ability to independently use sanitary pads following the implementation of the drill method intervention. The progressive increase in performance scores from baseline-1 (25%) to intervention-2 (83.33%) provides strong evidence for the effectiveness of this educational approach. These results are consistent with recent studies by [Retznik et al \(2023\)](#) who reported similar success rates using structured repetitive learning methods for personal care skills among individuals with intellectual disabilities.

**Table 5.** Summary of All Phases.

Phase	Sessions	Total Possible Score	Actual Score	Percentage
A1	4	24	6	25.00%
B1	6	36	17	47.22%
A2	4	24	17	70.83%
B2	6	36	30	83.33%

The data demonstrates a consistent upward trend in skill acquisition and retention across all phases of the study. The improvement from 25% in baseline-1 to 83.33% in intervention-2 represents a substantial gain in independent functioning, supporting the effectiveness of the drill method intervention.

According to [Rahmadhani \(2023\)](#), evaluating the impact of treatment on related variables requires assessment of stability, level of change, and data overlap extent. The current study demonstrates clear improvements across these criteria, with stable performance increases and minimal data overlap between phases. This pattern indicates that the drill method intervention produced meaningful and sustained behavioral changes in the subject's sanitary pad usage abilities.

The effectiveness of the drill method can be attributed to several factors identified in the special education literature. Research by [Thakur & Mishra \(2023\)](#) suggests that individuals with mild intellectual disabilities benefit from structured, repetitive learning experiences that break complex tasks into manageable components. The systematic progression from basic steps (hand washing, pad unwrapping) to more complex skills (proper positioning, final adjustment) allowed the subject to build confidence and competence gradually.

Furthermore, the A-B-A-B design employed in this study provides robust evidence for intervention effectiveness. Studies by [Akter \(2021\)](#) emphasize that single-subject research designs with multiple baseline and intervention phases offer strong internal validity for demonstrating causal relationships between interventions and behavioral outcomes. The maintained improvements observed during baseline-2 (70.83%) suggest that the drill method intervention produced lasting learning effects rather than temporary performance changes.

The skill acquisition pattern observed in this study aligns with research by [Yati et al \(2020\)](#) who investigated learning trajectories among individuals with intellectual disabilities. Their findings indicate that initial skill components are typically mastered first, followed by gradual integration of more complex task elements. The current study's results reflect this pattern, with basic preparatory skills showing improvement before advanced positioning and adjustment abilities.

The sustained improvement demonstrated in intervention-2 (83.33%) provides evidence for the long-term effectiveness of drill method interventions. Research by [Trigunait & Sharmila \(2023\)](#) suggests that repeated practice sessions combined with positive reinforcement create neural pathways that support skill retention and generalization. The near-complete independence achieved by the final session indicates successful skill transfer that should generalize to real-world menstrual hygiene management situations.

#### 4. CONCLUSION

The results of this study support the research hypothesis that there would be an improvement in the ability of children with mild intellectual disabilities to use sanitary pads correctly during menstruation. The progressive increase in performance scores from baseline-1 (25%) through intervention-2 (83.33%) demonstrates the effectiveness of the drill method in promoting independent sanitary pad usage skills.

This study provides empirical evidence that the drill method plays a significant role in enhancing the sanitary pad usage abilities of children with mild intellectual disabilities during menstruation. The A-B-A-B single-subject research design offers robust support for the causal relationship between the drill method intervention and improved performance outcomes. The sustained improvements observed across multiple phases indicate that the intervention produces lasting behavioral changes rather than temporary performance fluctuations.

The findings contribute to the special education literature by demonstrating the applicability of drill method interventions for personal care skill development among individuals with intellectual disabilities. The systematic approach employed in this study provides a replicable framework for educators and caregivers seeking to promote independence in menstrual hygiene management.

Based on the research findings, the following recommendations can be made: educators of students with special needs should promptly provide instruction on proper sanitary pad usage to female students with mild intellectual disabilities to enhance their self-care abilities during menstruation; parents and guardians should continue reinforcing sanitary pad usage skills through consistent practice and positive reinforcement; and future researchers should investigate the effectiveness of the drill method across diverse populations and settings while exploring the integration of technology-enhanced learning approaches for individuals with intellectual disabilities.

#### 5. ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the special education institution and its dedicated staff who provided invaluable support throughout this research. We extend our heartfelt appreciation to the research participant and her guardian for their cooperation and trust in this study. Special thanks are also given to the Faculty of Education and Psychology at Universitas Negeri Manado for providing the necessary resources and academic support. We acknowledge the valuable feedback from colleagues and reviewers that helped improve the quality of this research. Finally, we thank the institutional review board for their ethical guidance and approval of this study.

## 6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

## 7. REFERENCES

- Akter, M. (2021). *Mothers experiences on menstrual care management of girls with intellectual disabilities* [Doctoral dissertation, Bangladesh Health Professions Institute, Faculty of Medicine, the University of Dhaka].
- Armah-Ansah, E. K., Osei, D., Seidu, A. A., & Ahinkorah, B. O. (2023). Challenges and coping strategies adopted for effective menstrual hygiene management among intellectually disabled adolescents and their caregivers: A qualitative study. *Journal of Disability Studies*, 9(1), 25-30.
- Carmine, L., & Fisher, M. (2022). Menstrual and reproductive health in female adolescents with developmental disabilities. *Current Problems in Pediatric and Adolescent Health Care*, 52(8), 101243.
- Carter, A., Strnadová, I., Chloe, W., Roxanna, P., Bateson, D., Julie, L., & Newman, C. (2022). The sexual and reproductive health and rights of young people with intellectual disability: A scoping review. *Sexuality Research & Social Policy*, 19(1), 372-390.
- Flores-Medina, M. D. R., Valdez-Martinez, E., & Márquez-González, H. (2022). Qualitative focus groups with professionals of special education and parents of young females with intellectual disability exploring experiences with menstrual hygiene management and the trigger for the non-therapeutic hysterectomy in Mexico. *Healthcare*, 10(9), 1690.
- Gönenç, I. M., Çakırer Çalbayram, N., Altundağ, S., & Aktaş, Ö. (2020). Determination of the efficiency of menstruation hygiene training given to trainable intellectual disability adolescent girls. *Ankara Medical Journal*.
- Karthikayini, S., & Arun, S. (2021). Challenges faced by primary caretakers of adolescent girls with intellectual disability during their menstrual cycle in Puducherry: A mixed method study. *Indian Journal of Community Medicine*, 46(3), 416-420.
- Kırbaş, Z. Ö., Kahrıman, I., & Kaşko Arıcı, Y. (2022). Training female adolescent students with intellectual disabilities about genital hygiene skills using peer training. *International Journal of Developmental Disabilities*, 68(3), 332-341.
- Rahmadhani, D. (2023). *Efektivitas penggunaan modifikasi perilaku forward chaining dalam meningkatkan kemampuan bina diri anak tunagrahita saat menstruasi di SLB N Surakarta tahun ajaran 2022/2023*.
- Retznik, L., Wienholz, S., Höltermann, A., Conrad, I., & Riedel-Heller, S. G. (2023). "It gives me, as her caregiver, a sense of security." Young people with intellectual disability and their experiences with sexuality, menstruation, gynecological treatment and contraception: A follow-up analysis of parents' and caregivers' perspectives. *Sexuality and Disability*, 41(1), 97-116.
- Rizqita, A. J., Aprilia, I. D., Sunardi, S., Maryanti, R., Bela, M. R. W. A. T., Juhanaini, J., & Putri, L. A. How children with complex communication needs communicate their menstrual needs: ICT-based alternative and augmentative communication. *Jurnal Asesmen Dan Intervensi Anak Berkebutuhan Khusus*, 24(2), 63-76.

- Thakur, R., & Mishra, H. (2023). Engaging in dialogue with women with intellectual disability and their caregivers on menstruation: A qualitative analysis. *Journal of Asiatic Society for Social Science Research*, 5(1), 1-15.
- Trigunait, P., & Sharmila, V. (2023). Menstrual cessation in females with intellectual disabilities: An ethical dilemma. *Apollo Medicine*, 20(4), 371-374.
- Wilbur, J., Poilapa, R., & Morrison, C. (2022). Menstrual health experiences of people with intellectual disabilities and their caregivers during Vanuatu's humanitarian responses: A qualitative study. *International Journal of Environmental Research and Public Health*, 19(21), 14540.
- Yati, D., Lutfiyati, A., Riyadi, S., & Hafiz, A. (2020). Menstrual knowledge associated with adolescent's attitude of intellectual disability on facing menstruation in Bantul, Indonesia. *International Journal of Research in Medical Sciences*, 8(8), 2871-2876.